

0570
10/2

OIPE

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/870,962

DATE: 12/21/2001

TIME: 15:26:06

Input Set : N:\Crf3\RULE60\09870962.txt

Output Set: N:\CRF3\12212001\I870962.raw

#2

ENTERED

7 <110> APPLICANT: Bandman, Olga
 9 Tang, Y. Tom
 11 Hillman, Jennifer L.
 13 Yue, Henry
 15 Guegler, Karl J.
 17 Corley, Neil C.
 19 Gorgone, Gina
 21 Azimzai, Yalda
 23 Lu, Aina
 27 <120> TITLE OF INVENTION: Protein Kinase Homologs
 31 <130> FILE REFERENCE: PF-0614 US
 33 <140> CURRENT APPLICATION NUMBER: 09/870,962
 35 <141> CURRENT FILING DATE: 2001-05-30
 37 <150> PRIOR APPLICATION NUMBER: 09/420,915
 39 <151> PRIOR FILING DATE: 1999-10-20
 43 <150> PRIOR APPLICATION NUMBER: US 09/173,581
 45 <151> PRIOR FILING DATE: 1998-10-15
 49 <160> NUMBER OF SEQ ID NOS: 18
 53 <170> SOFTWARE: PERL Program
 55 <210> SEQ ID NO: 1
 57 <211> LENGTH: 297
 59 <212> TYPE: PRT
 61 <213> ORGANISM: Homo sapiens
 W--> 65 <220> FEATURE: -
 67 <223> OTHER INFORMATION: 119819
 71 <400> SEQUENCE: 1
 73 Met Arg Arg Lys Arg Lys Gln Gln Lys Arg Leu Leu Glu Glu Arg
 75 1 5 10 15
 77 Leu Arg Asp Leu Gln Arg Leu Glu Ala Met Glu Ala Ala Thr Gln
 79 20 25 30
 81 Ala Glu Asp Ser Gly Leu Arg Leu Asp Gly Gly Ser Gly Ser Thr
 83 35 40 45
 85 Ser Ser Ser Gly Cys His Pro Gly Gly Ala Arg Ala Gly Pro Ser
 87 50 55 60
 89 Pro Ala Ser Ser Ser Pro Ala Pro Gly Gly Gly Arg Ser Leu Ser
 91 65 70 75
 93 Ala Gly Ser Gln Thr Ser Gly Phe Ser Gly Ser Leu Phe Ser Pro
 95 80 85 90
 97 Ala Ser Cys Ser Ile Leu Ser Gly Ser Ser Asn Gln Arg Glu Thr
 99 95 100 105
 101 Gly Gly Leu Leu Ser Pro Ser Thr Pro Phe Gly Ala Ser Asn Leu
 103 110 115 120
 105 Leu Val Asn Pro Leu Glu Pro Gln Asn Ala Asp Lys Ile Lys Ile
 107 125 130 135
 109 Lys Ile Ala Asp Leu Gly Asn Ala Cys Trp Val His Lys His Phe
 111 140 145 150
 113 Thr Glu Asp Ile Gln Thr Arg Gln Tyr Arg Ala Val Glu Val Leu

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Input Set : N:\Crf3\RULE60\09870962.txt

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```

115          155          160          165
117 Ile Gly Ala Glu Tyr Gly Pro Pro Ala Asp Ile Trp Ser Thr Ala
119          170          175          180
121 Cys Met Ala Phe Glu Leu Ala Thr Gly Asp Tyr Leu Phe Glu Pro
123          185          190          195
127 His Ser Gly Glu Asp Tyr Ser Arg Asp Glu Asp His Ile Ala His
129          200          205          210
131 Ile Val Glu Leu Leu Gly Asp Ile Pro Pro Ala Phe Ala Leu Ser
133          215          220          225
135 Gly Arg Tyr Ser Arg Glu Phe Phe Asn Arg Arg Gly Glu Leu Arg
137          230          235          240
139 His Ile His Asn Leu Lys His Trp Gly Leu Tyr Glu Val Leu Met
141          245          250          255
143 Glu Lys Tyr Glu Trp Pro Leu Glu Gln Ala Thr Gln Phe Ser Ala
145          260          265          270
147 Phe Leu Leu Pro Met Asn Glu Tyr Ile Pro Glu Lys Arg Ala Ser
149          275          280          285
151 Ala Arg Asp Cys Leu Gln His Pro Trp Leu Gln Pro
153          290          295

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163 <210> SEQ ID NO: 2

165 <211> LENGTH: 287

167 <212> TYPE: PRT

169 <213> ORGANISM: Homo sapiens

W--> 173 <220> FEATURE: -

175 <223> OTHER INFORMATION: 132750

179 <400> SEQUENCE: 2

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181 Met Gln Glu Ile Pro Gln Glu Gln Ile Lys Glu Ile Lys Lys Glu
183   1          5          10          15
185 Gln Leu Ser Gly Ser Pro Trp Ile Leu Leu Arg Glu Asn Glu Val
187          20          25          30
189 Ser Thr Leu Tyr Lys Gly Glu Tyr His Arg Ala Pro Val Ala Ile
191          35          40          45
193 Lys Val Phe Lys Lys Leu Gln Ala Gly Ser Ile Ala Ile Val Arg
195          50          55          60
197 Gln Thr Phe Asn Lys Glu Ile Lys Thr Met Lys Lys Phe Glu Ser
199          65          70          75
201 Pro Asn Ile Leu Arg Ile Phe Gly Ile Cys Ile Asp Glu Thr Val
203          80          85          90
205 Thr Pro Pro Gln Phe Ser Ile Val Met Glu Tyr Cys Glu Leu Gly
207          95          100          105
209 Thr Leu Arg Glu Leu Leu Asp Arg Glu Lys Asp Leu Thr Leu Gly
211          110          115          120
213 Lys Arg Met Val Leu Val Leu Gly Ala Ala Arg Gly Leu Tyr Arg
215          125          130          135
217 Leu His His Ser Glu Ala Pro Glu Leu His Gly Lys Ile Arg Ser
219          140          145          150
221 Ser Asn Phe Leu Val Thr Gln Gly Tyr Gln Val Lys Leu Ala Gly
223          155          160          165
225 Phe Glu Leu Arg Lys Thr Gln Thr Ser Met Ser Leu Gly Thr Thr

```

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Input Set : N:\Crf3\RULE60\09870962.txt

Output Set: N:\CRF3\12212001\I870962.raw

```

227          170          175          180
229 Arg Glu Lys Thr Asp Arg Val Lys Ser Thr Ala Tyr Leu Ser Pro
231          185          190          195
233 Gln Glu Leu Glu Asp Val Phe Tyr Gln Tyr Asp Val Lys Ser Glu
235          200          205          210
237 Ile Tyr Ser Phe Gly Ile Val Leu Trp Glu Ile Ala Thr Gly Asp
239          215          220          225
241 Ile Pro Phe Gln Gly Cys Asn Ser Glu Lys Ile Arg Lys Leu Val
243          230          235          240
245 Ala Val Lys Arg Gln Gln Glu Pro Leu Gly Glu Asp Cys Pro Ser
247          245          250          255
249 Glu Leu Arg Glu Ile Ile Asp Glu Cys Arg Ala His Asp Pro Ser
251          260          265          270
253 Val Arg Pro Ser Val Asp Glu Ile Leu Lys Lys Leu Ser Thr Phe
255          275          280          285
257 Ser Lys
267 <210> SEQ ID NO: 3
269 <211> LENGTH: 346
271 <212> TYPE: PRT
273 <213> ORGANISM: Homo sapiens
W--> 277 <220> FEATURE: -
279 <223> OTHER INFORMATION: 507669
283 <400> SEQUENCE: 3
285 Met Gly Cys Gly Cys Ser Ser His Pro Glu Asp Asp Trp Met Glu
287   1          5          10          15
289 Asn Ile Asp Val Cys Glu Asn Cys His Tyr Pro Ile Val Pro Leu
291          20          25          30
293 Asp Gly Lys Gly Thr Leu Leu Ile Arg Asn Gly Ser Glu Val Arg
295          35          40          45
297 Asp Pro Leu Val Thr Tyr Glu Gly Ser Asn Pro Pro Ala Ser Pro
299          50          55          60
301 Leu Gln Asp Asn Leu Val Ile Ala Leu His Ser Tyr Glu Pro Ser
303          65          70          75
305 His Asp Gly Asp Leu Gly Phe Glu Lys Gly Glu Gln Leu Arg Ile
307          80          85          90
309 Leu Glu Gln Ser Gly Glu Trp Trp Lys Ala Gln Ser Leu Thr Thr
311          95          100         105
313 Gly Gln Glu Gly Phe Ile Pro Phe Asn Phe Val Ala Lys Ala Asn
315          110         115         120
317 Ser Leu Glu Pro Glu Ala Asn Leu Met Lys Gln Leu Gln His Gln
319          125         130         135
321 Arg Leu Val Arg Leu Tyr Ala Val Val Thr Gln Glu Pro Ile Tyr
323          140         145         150
325 Ile Ile Thr Glu Tyr Met Glu Asn Gly Ser Leu Val Asp Phe Leu
327          155         160         165
329 Lys Thr Pro Ser Gly Ile Lys Leu Thr Ile Asn Lys Leu Leu Asp
331          170         175         180
333 Met Ala Ala Gln Ile Ala Glu Gly Met Ala Phe Ile Glu Glu Arg
335          185         190         195

```

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Input Set : N:\Crf3\RULE60\09870962.txt

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```

337 Asn Tyr Ile His Arg Asp Leu Arg Ala Ala Asn Ile Leu Val Ser
339                200                205                210
341 Asp Thr Leu Ser Cys Lys Ile Ala Asp Phe Gly Leu Ala Arg Leu
343                215                220                225
345 Ile Glu Asp Asn Glu Tyr Thr Ala Arg Glu Gly Ala Lys Phe Pro
347                230                235                240
349 Ile Lys Trp Thr Ala Pro Glu Ala Ile Asn Tyr Gly Thr Phe Thr
351                245                250                255
353 Ile Lys Ser Asp Val Trp Ser Phe Gly Ile Leu Leu Thr Glu Ile
355                260                265                270
357 Val Thr His Gly Arg Ile Pro Tyr Pro Gly Met Thr Asn Pro Glu
359                275                280                285
363 Val Ile Gln Asn Leu Glu Arg Gly Tyr Arg Met Val Arg Pro Asp
365                290                295                300
367 Asn Cys Pro Glu Glu Leu Tyr Gln Leu Met Arg Leu Cys Trp Lys
369                305                310                315
371 Glu Arg Pro Glu Asp Arg Pro Thr Phe Asp Tyr Leu Arg Ser Val
373                320                325                330
375 Leu Glu Asp Phe Phe Thr Ala Thr Glu Gly Gln Tyr Gln Pro Gln
377                335                340                345
379 Pro

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389 <210> SEQ ID NO: 4

391 <211> LENGTH: 90

393 <212> TYPE: PRT

395 <213> ORGANISM: Homo sapiens

W--> 399 <220> FEATURE: -

401 <223> OTHER INFORMATION: 1439938

405 <400> SEQUENCE: 4

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407 Met Pro Ala Gly Gly Arg Ala Gly Ser Leu Lys Asp Pro Asp Val
409 1      5      10      15
411 Ala Glu Leu Phe Phe Lys Asp Asp Pro Glu Lys Leu Phe Ser Asp
413      20      25      30
415 Leu Arg Glu Ile Gly His Gly Ser Phe Gly Ala Val Tyr Phe Ala
417      35      40      45
419 Arg Asp Val Arg Asn Ser Glu Val Val Ala Ile Lys Lys Met Ser
421      50      55      60
423 Tyr Ser Gly Lys Gln Ser Asn Glu Lys Trp Gln Asp Ile Ile Lys
425      65      70      75
427 Glu Val Arg Arg Arg Arg Arg Val Gly Arg Glu Asp Glu Glu Arg
429      80      85      90

```

439 <210> SEQ ID NO: 5

441 <211> LENGTH: 327

443 <212> TYPE: PRT

445 <213> ORGANISM: Homo sapiens

W--> 449 <220> FEATURE: -

451 <223> OTHER INFORMATION: 1447427

455 <400> SEQUENCE: 5

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457 Met Ser Ser Phe Leu Pro Glu Gly Gly Cys Tyr Glu Leu Leu Thr
459 1      5      10      15

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RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/870,962

DATE: 12/21/2001

TIME: 15:26:06

Input Set : N:\Crf3\RULE60\09870962.txt

Output Set: N:\CRF3\12212001\I870962.raw

```

461 Val Ile Gly Lys Gly Phe Glu Asp Leu Met Thr Val Asn Leu Ala
463                20                25                30
465 Arg Tyr Lys Pro Thr Gly Glu Tyr Val Thr Val Arg Arg Ile Asn
467                35                40                45
469 Leu Glu Ala Cys Ser Asn Glu Met Val Thr Phe Leu Gln Gly Glu
471                50                55                60
473 Leu His Val Ser Lys Leu Phe Asn His Pro Asn Ile Val Pro Tyr
475                65                70                75
477 Arg Ala Thr Phe Ile Ala Asp Asn Glu Leu Trp Val Val Thr Ser
479                80                85                90
481 Phe Met Ala Tyr Gly Ser Ala Lys Asp Leu Ile Cys Thr His Phe
483                95               100               105
485 Met Asp Gly Met Asn Glu Leu Ala Ile Ala Tyr Ile Leu Gln Gly
487               110               115               120
489 Val Leu Lys Ala Leu Asp Tyr Ile His His Met Gly Tyr Val His
491               125               130               135
493 Arg Ser Val Lys Ala Ser His Ile Leu Ile Ser Val Asp Gly Lys
495               140               145               150
497 Val Tyr Leu Ser Gly Leu Arg Thr Thr Leu Ser Met Ile Ser His
499               155               160               165
501 Gly Gln Arg Gln Arg Val Val His Asp Phe Pro Lys Tyr Ser Val
503               170               175               180
505 Lys Val Leu Pro Trp Leu Ser Pro Glu Val Leu Gln Gln Asn Leu
507               185               190               195
509 Gln Gly Tyr Asp Ala Lys Ser Asp Ile Tyr Ser Val Gly Ile Thr
511               200               205               210
513 Ala Cys Glu Leu Ala Asn Gly His Val Pro Phe Lys Asp Met Pro
515               215               220               225
517 Ala Thr Gln Met Leu Leu Glu Lys Leu Asn Gly Thr Val Pro Cys
519               230               235               240
521 Leu Leu Asp Thr Ser Thr Ile Pro Ala Glu Glu Leu Thr Met Ser
523               245               250               255
525 Pro Ser Arg Ser Val Ala Asn Ser Gly Leu Ser Asp Ser Leu Thr
527               260               265               270
529 Thr Ser Thr Pro Arg Pro Ser Asn Gly Asp Ser Pro Ser His Pro
531               275               280               285
533 Tyr His Arg Thr Phe Ser Pro His Phe His His Phe Val Glu Gln
535               290               295               300
537 Cys Leu Gln Arg Asn Pro Asp Ala Arg Tyr Pro Cys Trp Pro Gly
539               305               310               315
541 Pro Gly Leu Arg Glu Ser Arg Gly Cys Ser Gly Gly
543               320               325

```

553 <210> SEQ ID NO: 6

555 <211> LENGTH: 345

557 <212> TYPE: PRT

559 <213> ORGANISM: Homo sapiens

W--> 563 <220> FEATURE: -

565 <223> OTHER INFORMATION: 1567782

569 <400> SEQUENCE: 6

VERIFICATION SUMMARY

PATENT APPLICATION: US/09/870,962

DATE: 12/21/2001

TIME: 15:26:07

Input Set : N:\Crf3\RULE60\09870962.txt

Output Set: N:\CRF3\12212001\I870962.raw

L:65 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:173 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:277 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:399 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:449 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:563 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:681 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:821 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:885 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:949 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:1019 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:1095 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:1171 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:1267 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:1319 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:1323 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14
L:1339 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:1423 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:1503 M:256 W: Invalid Numeric Header Field, <220> has non-blank data
L:1593 M:256 W: Invalid Numeric Header Field, <220> has non-blank data